

**To:** Palma, Elizabeth[Palma.Elizabeth@epa.gov]  
**From:** Jones, Rhea  
**Sent:** Wed 6/11/2014 5:48:21 PM  
**Subject:** RE: Preliminary Discussion on St. Louis PM2.5 Boundaries, 866-299-3188, code 9135517193 - Notes re call cancellation

Thanks Beth!

**From:** Palma, Elizabeth  
**Sent:** Wednesday, June 11, 2014 10:36 AM  
**To:** Jones, Rhea; Keating, Martha; Mathias, Scott  
**Cc:** Evangelista, Mark; Naess, Liz  
**Subject:** RE: Preliminary Discussion on St. Louis PM2.5 Boundaries, 866-299-3188, code 9135517193 - Notes re call cancellation

Hi, All –

I just got off the phone with Josh Tapp in Region 7 who indicated that he/Becky intended to cancel today's 12-1 ET discussion of the St. Louis area.

Today's discussion was to have centered on MO's rec of unclassifiable/attainment based on MO's lack of contribution to the violating monitor on the IL side of the river (MO's position is that a single point source, US Steel in IL, is the reason for the violating monitor).

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That said, Josh is canceling today's meeting because the validity of the violating monitors in IL is now in question. Earlier this week R5 received results of a technical systems audit of IL (and the rest of R5) labs and found that some of the IL data are invalid. When I spoke with Region 5 about this yesterday, they indicated that R5 was meeting with IL on Thursday (6/12/14) to discuss the extent of the issue. At this point R5 expects limited invalid data in IL and does not expect the status of monitors/2013 DVs to be affected.

My discussion w/R5 was slightly different than Josh's understanding of the R5 data issue. Regardless, Josh wanted to defer today's discussion until we know the status of the violating IL

monitor.

Beth

**From:** Palma, Elizabeth  
**Sent:** Thursday, May 29, 2014 10:02 AM  
**To:** Jones, Rhea; Keating, Martha; Mathias, Scott  
**Subject:** FW: Preliminary Discussion on St. Louis PM2.5 Boundaries, 866-299-3188, code 9135517193

See email below from Amy Bhesania in R7 re 6/11/14 St. Louis discussion.

**From:** Bhesania, Amy  
**Sent:** Thursday, May 29, 2014 9:35 AM  
**To:** Palma, Elizabeth  
**Subject:** RE: Preliminary Discussion on St. Louis PM2.5 Boundaries, 866-299-3188, code 9135517193

Glad to hear that. Do you know if Chet or anyone else from OAQPS is on the invite at this point? I'll check on this end, but I can't see specifically.

The main focus of the discussion will be to discuss our path forward/recommendations with R5. We wanted to loop in OAQPS so that you all were aware of the issues pending before us. I think you already have a good sense of the issue in St. Louis though.

A few weeks ago we briefed Becky (using the attached PPT) and the follow up was to hold a conf. call with R5/OAQPS to discuss further. There are some additional pieces of info I need to put together to add to this presentation, but you get the gist.

Let me know what other info I could help provide. Thx.

-ab

Amy R. Bhesania | 11201 Renner Boulevard, Lenexa KS 66219  
[bhesania.amy@epa.gov](mailto:bhesania.amy@epa.gov) | (913) 551-7147

**From:** Palma, Elizabeth  
**Sent:** Thursday, May 29, 2014 7:20 AM  
**To:** Bhesania, Amy  
**Subject:** Re: Preliminary Discussion on St. Louis PM2.5 Boundaries, 866-299-3188, code 9135517193

Amy –

Scott Mathias forwarded a 6/11/14 12-1 pm ET invite from Becky Weber to discuss the St. Louis boundaries. Can you provide additional insight? Thanks.

Beth

**To:** Keating, Martha[keating.martha@epa.gov]; Palma, Elizabeth[Palma.Elizabeth@epa.gov]; Mathias, Scott[Mathias.Scott@epa.gov]  
**From:** Jones, Rhea  
**Sent:** Fri 8/8/2014 5:58:20 PM  
**Subject:** RE: Documenting Deferred and Unclassifiable Area Decisions - Doc for Review  
UnclassifiableTSDTemplateIntro\_GA\_mk.docx

My notes are included...

**From:** Keating, Martha  
**Sent:** Friday, August 08, 2014 11:36 AM  
**To:** Palma, Elizabeth; Mathias, Scott  
**Cc:** Jones, Rhea  
**Subject:** RE: Documenting Deferred and Unclassifiable Area Decisions - Doc for Review

Hey Rhea, Beth and Scott -

I had a couple of edits and a question (attached) **Ex. 5 - Deliberative**  
**Ex. 5 - Deliberative** Are we saying that because our intended designation is not yet final?  
Just a heads up that the response to the IG letter Qs and As calls it "invalid data" -  
nothing potential about it ....

mk

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**From:** Palma, Elizabeth  
**Sent:** Friday, August 8, 2014 10:35 AM  
**To:** Mathias, Scott  
**Cc:** Jones, Rhea; Keating, Martha  
**Subject:** RE: Documenting Deferred and Unclassifiable Area Decisions - Doc for Review

Scott –

Here's my draft intro for the Unclassifiable TSDish documents (deferred memo to follow later today). I'm also attaching, as FYI, the summary spreadsheet, which has tabs for Nonattainment (column F identifies our intended counties), Deferred (column E identifies our intended

counties), Unclassifiable (column F identifies our intended counties – note that the highlighted/identified counties for TN are unclassifiable/attainment vs unclassifiable), and Unclassifiable/Attainment w/ExEvents (nothing new here).

Once you have reviewed/revised the attached doc, I'll forward to Regions 4 and 5. Let me know if you have any questions. Thanks.

Beth

**From:** Mathias, Scott  
**Sent:** Thursday, August 07, 2014 2:02 PM  
**To:** Benjamin, Lynorae; Jones, Rhea; Palma, Elizabeth; Naess, Liz; Keating, Martha  
**Cc:** Davis, Scott; Gettle, Jeaneanne  
**Subject:** RE: Documenting Deferred Area Decisions

Yes, I think the approach for documenting TN as a whole

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## **Ex. 5 - Deliberative**

Scott Mathias | Associate Director, Air Quality Policy Division | U.S. EPA, RTP, NC 27711 | 919.541.5310

**From:** Benjamin, Lynorae  
**Sent:** Thursday, August 07, 2014 1:08 PM  
**To:** Mathias, Scott; Jones, Rhea; Palma, Elizabeth; Naess, Liz; Keating, Martha  
**Cc:** Davis, Scott; Gettle, Jeaneanne  
**Subject:** RE: Documenting Deferred Area Decisions

Thanks for the email with direction on this... we have some things put together because we initially thought we would have to put something together for these areas to support an unclassifiable designation so this should be easy to put together.

After the discussion today, it further illuminated for me that we need direction on

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I think we have general agreement on all but Memphis at this point.

I hope your day is going well.

Lynorae

**From:** Mathias, Scott

**Sent:** Thursday, August 07, 2014 11:33 AM

**To:** Gettle, Jeaneanne; Benjamin, Lynorae; Jones, Rhea; Palma, Elizabeth; Naess, Liz; Keating, Martha

**Subject:** Documenting Deferred Area Decisions

**Importance:** High

We had a brief discussion just now about appropriate documentation for the areas that we are deferring, and the nearby areas that we are intending to finalize in 2014 as 'U/A'.

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I note that for the vast majority of the USofA where we are using 'U/A' we are NOT producing any kind of TSD. With that in mind I'm trying to lower the hurdle.

Document 1: Liz will be producing a memo to the docket regarding the data issues that give rise to the decision to defer certain areas.

Document 2: Memo to the docket containing

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Does that make sense?

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**Scott Mathias | Associate Director, Air Quality Policy Division | U.S. EPA, RTP, NC 27711 |  
919.541.5310**

**To:** Wayland, Richard[Wayland.Richard@epa.gov]; Mathias, Scott[Mathias.Scott@epa.gov]  
**From:** Solomon, Douglas  
**Sent:** Mon 7/21/2014 11:00:19 AM  
**Subject:** RE: Design Value Summary and Maps for Atlanta and Columbus

Atlanta is UNCLASSIFIABLE in every way (sung to the tune of Nat King Cole's Unforgettable).

Doug

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**From:** Wayland, Richard  
**Sent:** Friday, July 18, 2014 4:04 PM  
**To:** Mathias, Scott; Solomon, Douglas  
**Subject:** RE: Design Value Summary and Maps for Atlanta and Columbus

I read this as	<b>Ex. 5 - Deliberative</b>
<b>Ex. 5 - Deliberative</b>	

Richard A. "Chet" Wayland | Director | Air Quality Analysis Division - Mail Code C304-02 | Office of Air Quality Planning & Standards | U.S. Environmental Protection Agency | Research Triangle Park, NC 27711 | Desk: 919-541-4603 | Cell: 919-606-0548 | Fax: 919-685-3377 |

**From:** Mathias, Scott  
**Sent:** Friday, July 18, 2014 4:00 PM  
**To:** Solomon, Douglas; Wayland, Richard  
**Subject:** FW: Design Value Summary and Maps for Atlanta and Columbus

Interpretation please...?

**Scott Mathias | Associate Director, Air Quality Policy Division | U.S. EPA, RTP, NC 27711 | 919.541.5310**



**From:** Gettle, Jeaneanne  
**Sent:** Friday, July 18, 2014 3:44 PM  
**To:** Mathias, Scott  
**Cc:** Solomon, Douglas; Palma, Elizabeth; Jones, Rhea; Keating, Martha; Wayland, Richard; Worley, Gregg; Davis, Scott; Benjamin, Lynorae; Rinck, Todd  
**Subject:** RE: Design Value Summary and Maps for Atlanta and Columbus

Scott,

Gregg Worley, the Branch Chief for our monitoring group, provided the following:

“....the concern that we have with how well data from lower DV monitors correlate with a monitor that has been historically the high monitor that measures both urban and local source PM. Having said that, we did do the imputation and bootstrapping analysis using the S. Dekalb monitor to the Fire Station #8 monitor and the bootstrapping analysis did have a close correlation. Yorkville is an upwind monitor that is more akin to measuring background. We have not specifically investigated the correlations with the other sites but expect that 1) 

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 and 2) 

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Thanks

jeaneanne

**From:** Mathias, Scott  
**Sent:** Friday, July 18, 2014 2:47 PM  
**To:** Gettle, Jeaneanne  
**Cc:** Solomon, Douglas; Palma, Elizabeth; Jones, Rhea; Keating, Martha; Wayland, Richard  
**Subject:** RE: Design Value Summary and Maps for Atlanta and Columbus

Jeaneanne,

Based on this info, we think	Ex. 5 - Deliberative
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Ex. 5 - Deliberative	One caveat is that if we had
further analysis of how Fire Station #8 correlates with the surrounding core-area	
monitors* we might feel comfortable concluding that	Ex. 5 - Deliberative
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\*- defining core-area monitors here as S. Dekalb, Forest Park, FS#8, Gwinnett, Kennesaw, and Yorkville.

**Scott Mathias | Associate Director, Air Quality Policy Division | U.S. EPA, RTP, NC 27711 | 919.541.5310**

**From:** Worley, Gregg  
**Sent:** Friday, July 18, 2014 2:39 PM  
**To:** Wayland, Richard; Gettle, Jeaneanne; Rinck, Todd  
**Cc:** Mathias, Scott; Solomon, Douglas; Palma, Elizabeth; Jones, Rhea  
**Subject:** RE: Design Value Summary and Maps for Atlanta and Columbus

Chet,

We know that Fire Station #8 will not have a valid design value after 2014 data is included. Every other monitor in the Atlanta area should be able to have a valid design value.

For Columbus, all three monitors on the Georgia side will have valid design values if they continue to collect complete data in 2014.

Gregg

**From:** Wayland, Richard  
**Sent:** Friday, July 18, 2014 2:24 PM  
**To:** Worley, Gregg; Gettle, Jeaneanne; Rinck, Todd  
**Cc:** Mathias, Scott; Solomon, Douglas; Palma, Elizabeth; Jones, Rhea

**Subject:** RE: Design Value Summary and Maps for Atlanta and Columbus

Thanks Greg. In the after discussion the one question we probably need to know about Atlanta and Columbus is which monitors are likely to have complete data using 2014? And for Atlanta, the real key is Fire Station #8, which was the highest monitor in 2012, going to have complete data if we use 2014?

**Ex. 5 - Deliberative** We have good data in 2013 for Forest park and South DeKalb (Gainsville too, but that one is not really near the downtown area). If those sites hold in 2014 and we can also pick up Fire Station #8, Kennesaw, Gwinnett Tech then we should be good to go. At a minimum, we need Fire Station #8 as it is the highest monitor in the area.

So, if you guys have any insight there, that would be helpful.

In Columbus, **Ex. 5 - Deliberative**  
**Ex. 5 - Deliberative** then that might be all that is needed.

If you can let us know on those what the changes are for each of those sites, then that would probably help in getting everyone on the same page.

Thanks!

Chet

Richard A. "Chet" Wayland | Director | Air Quality Analysis Division - Mail Code C304-02 | Office of Air Quality Planning & Standards | U.S. Environmental Protection Agency | Research Triangle Park, NC 27711 | Desk: 919-541-4603 | Cell: 919-606-0548 | Fax: 919-685-3377 |

**From:** Worley, Gregg

**Sent:** Friday, July 18, 2014 12:02 PM

**To:** Gettle, Jeaneanne; Rinck, Todd; Wayland, Richard  
**Subject:** RE: Design Value Summary and Maps for Atlanta and Columbus

I think the confusion is that in some documents, the Athens, GA monitor (which has a valid attaining design value) is listed as being part of the Atlanta area. It is in the new CSA but not the CBSA. Also, the Doraville, E. Rivers, and Powder Springs monitors were approved for shut down at the end of 2012 in the annual network plan review.

Gregg

**From:** Gettle, Jeaneanne  
**Sent:** Friday, July 18, 2014 11:47 AM  
**To:** Worley, Gregg; Rinck, Todd  
**Subject:** FW: Design Value Summary and Maps for Atlanta and Columbus

**From:** Wayland, Richard  
**Sent:** Friday, July 18, 2014 11:42 AM  
**To:** Gettle, Jeaneanne; Mathias, Scott  
**Subject:** RE: Design Value Summary and Maps for Atlanta and Columbus

Quick question... I thought originally we had 4 sites in 2011-2013 that were valid for ATL, but the table only shows 3. Is that correct?

Chet

Richard A. "Chet" Wayland | Director | Air Quality Analysis Division - Mail Code C304-02 | Office of Air Quality Planning & Standards | U.S. Environmental Protection Agency | Research Triangle Park, NC 27711 | Desk: 919-541-4603 | Cell: 919-606-0548 | Fax: 919-685-3377 |

**From:** Gettle, Jeaneanne  
**Sent:** Friday, July 18, 2014 11:24 AM  
**To:** Mathias, Scott; Wayland, Richard  
**Subject:** FW: Design Value Summary and Maps for Atlanta and Columbus

Scott,

Per our conversation this morning, here is information on Atlanta and Columbus. With regard to Albany and Brunswick there are not valid design values for 2010 – 2012.

Let me know if you need additional information.

Thanks

jeaneanne

**From:** Garver, Daniel  
**Sent:** Friday, July 18, 2014 11:11 AM  
**To:** Gettle, Jeaneanne  
**Cc:** Worley, Gregg; Rinck, Todd; Palmer, Darren  
**Subject:** Design Value Summary and Maps for Atlanta and Columbus

Jeaneanne,

Here is the summary information that you requested for Atlanta and Columbus. There is a table summarizing the design values of each site for 2010-2012 and 2011-2013, and a map for each area.

Please note that the maps only show sites that are currently operational. The design value table still includes three sites in Atlanta that were approved to shut down at the end of 2012. If you have any questions about these materials, please let me know.

Thanks,

Daniel Garver

Environmental Scientist

US EPA Region 4

61 Forsyth Street, SW

Atlanta, GA 30303

(404) 562-9839

**To:** Mathias, Scott[Mathias.Scott@epa.gov]  
**Cc:** Banister, Beverly[Banister.Beverly@epa.gov]; Kemker, Carol[Kemker.Carol@epa.gov]; Worley, Gregg[Worley.Gregg@epa.gov]; Rinck, Todd[Rinck.Todd@epa.gov]; Davis, Scott[Davis.ScottR@epa.gov]; Benjamin, Lynorae[benjamin.lynorae@epa.gov]; Wayland, Richard[Wayland.Richard@epa.gov]; Naess, Liz[Naess.Liz@epa.gov]; Wood, Anna[Wood.Anna@epa.gov]; Jones, Rhea[Jones.Rhea@epa.gov]  
**From:** Gettle, Jeaneanne  
**Sent:** Wed 7/16/2014 12:13:55 PM  
**Subject:** RE: PM Designations - data gap associated with 2011 storm event

Scott,

Thanks to both you and Chet for looking at this and getting back to me so quickly. We will consider the issues/options you have discussed and let you know if this changes in any way how we are proceeding.

Thanks again.

Jeaneanne

**From:** Mathias, Scott  
**Sent:** Tuesday, July 15, 2014 6:08 PM  
**To:** Gettle, Jeaneanne  
**Cc:** Banister, Beverly; Kemker, Carol; Worley, Gregg; Rinck, Todd; Davis, Scott; Benjamin, Lynorae; Wayland, Richard; Naess, Liz; Wood, Anna; Jones, Rhea  
**Subject:** RE: PM Designations - data gap associated with 2011 storm event

Jeaneanne,

Chet and I have reviewed this information and have discussed this in more detail.

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Our understanding is that most (or all) of the Georgia areas in question have multiple quarters of data that are incomplete, so the snow storm impact is not the only shortcoming.

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We are happy to further discuss this with you and your colleagues if you wish.

40 CFR PART 50, APPENDIX T, 3(d)

(d) A 1-hour primary standard design value based on data that do not meet the completeness criteria stated in 3(b) and also do not satisfy section 3(c), may also be considered valid with the approval of, or at the initiative of, the Administrator, who may consider factors such as monitoring site closures/moves, monitoring diligence, the consistency and levels of the valid concentration measurements that are available, and nearby concentrations in determining whether to use such data.

Scott Mathias | Associate Director, Air Quality Policy Division | U.S. EPA, RTP, NC 27711 | 919.541.5310

**From:** Gettle, Jeaneanne



**Sent:** Thursday, July 10, 2014 1:26 PM  
**To:** Wayland, Richard; Mathias, Scott  
**Cc:** Banister, Beverly; Kemker, Carol; Worley, Gregg; Rinck, Todd; Davis, Scott; Benjamin, Lynorae  
**Subject:** FW: PM Designations - data gap associated with 2011 storm event

Chet and Scott,

Per our conversations, here is a summary of the impact of the 2011 winter storm in GA.

Please let us know if you have any questions.

Thanks

jeanneanne

Details on Aftermath of Winter Storm in January 2011

<http://www.srh.noaa.gov/ffc/?n=20110109winterstorm>

The January 9-10, 2011, winter storm encompassed large portions of Georgia causing power outages affecting monitoring sites and the state's laboratory (see the picture below). The Georgia EPD lab is located in NE Atlanta – Norcross, GA (Gwinnett County). Their lab provides the PM<sub>2.5</sub> gravimetric weighing service for EPD's PM<sub>2.5</sub> ambient air monitoring program. PM<sub>2.5</sub> filter samples across the state were affected from January 9 through about February 24, 2011. The actual number of missed sampling days due to the ice storm will vary with each site as all sites are not on the same sampling frequency. This can range from 8-45 missed samples per monitor. The impact of the storm on the lab is illustrated by the amount of data flagged by in the first quarter versus the second quarter of 2011. In the first quarter of 2011 when the storm occurred 650 out of 1371 total samples (47.4%) were flagged for lab error. In the second quarter of 2011 one of 1367 total samples (0.00073%) were flagged for lab error.

The state included the following information on the storm on the impacts of the storm in a draft technical analysis provided to R4.

“It is important to note that all of the Georgia monitors, except for South DeKalb, have incomplete data for the first quarter of 2011. This was due to circumstances out of EPD’s control that resulted from a snow and ice storm from January 9<sup>th</sup> through 11<sup>th</sup>, 2011. The storm caused problems with the power and environmental control systems for the EPD Laboratory which lost power on and off during the following week. The systems were brought back on line by Friday, January 14<sup>th</sup>; however, the weighing rooms could not be stabilized until February 2<sup>nd</sup>, 24 days after the storm began. In order to meet Federal ambient monitor sampling deadlines, both pre- and post-sample weighing had to be conducted during this period. Furthermore, samples could not have been prepared or taken through the preparation process at another laboratory (commercial, Federal, State or academic) and still meet Federal sampling requirements.”

While a large portion of the lab was able to be opened in a reasonable time after the storm, the state indicated in its report the temperature and humidity of the PM2.5 gravimetric weigh lab was not able to be stabilized until February 2<sup>nd</sup>. In reviewing the data, EPA Region 4 believes there is evidence that the lab was experiencing control issues up to February 24. This affected sample preparation and analysis into late February for all but one site in the state (that site has a continuous FEM).

The good news is that many areas in Georgia were still able to have validated annual design values even when considering this event. However, some MSAs have monitors with additional incomplete quarters for the 2011-2013 design value period: Savannah, Albany, Valdosta and one monitor in the Columbus MSA.

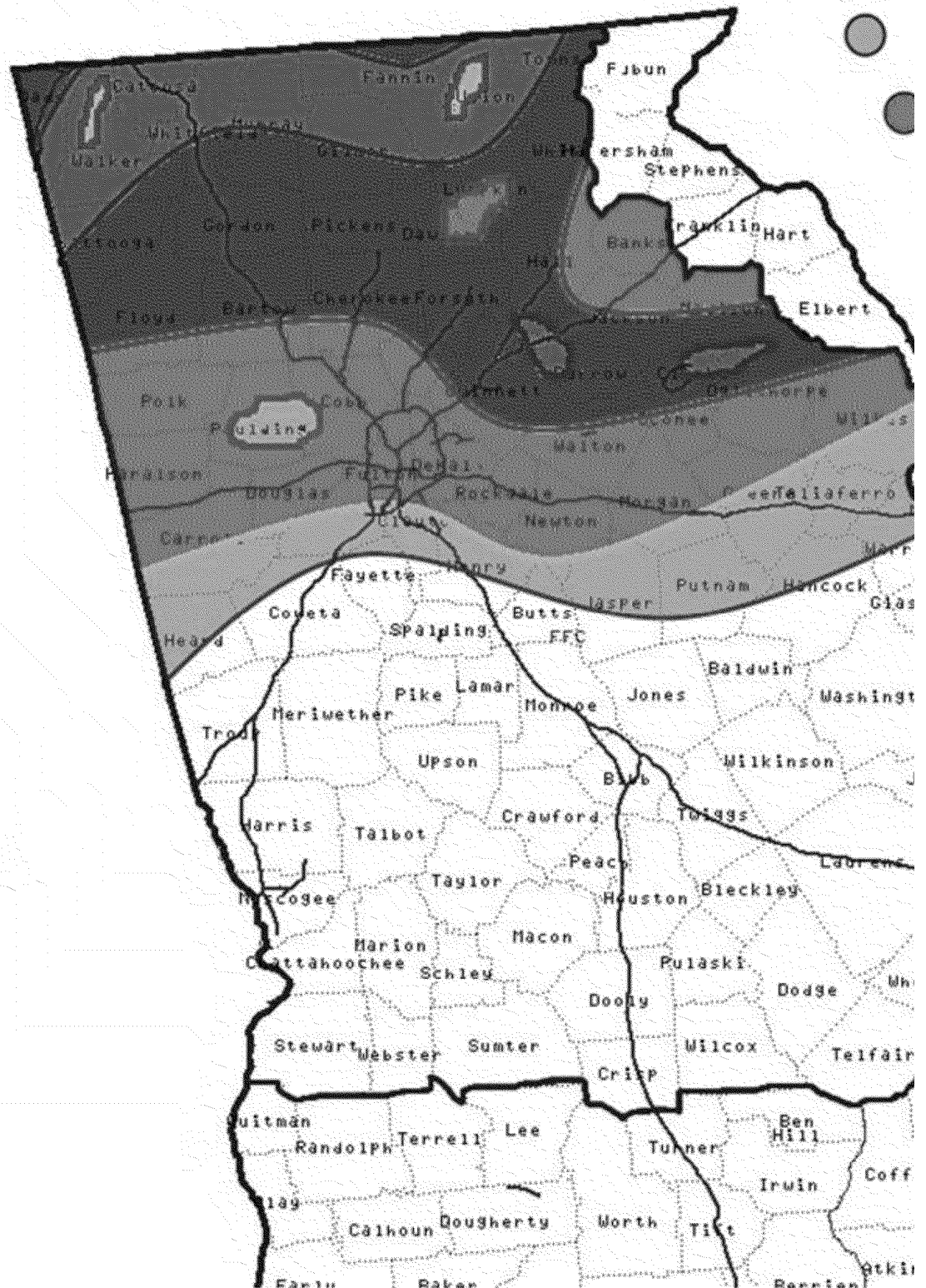
To demonstrate the impact of this one natural disaster, we conducted data substitution and treated the data as if the 1<sup>st</sup> quarter 2011 was a force majeure event. Looking at the data in this manner we found that Savannah, Valdosta and Columbus would have validated attaining annual design values. Their ‘test’ design values are 11.1, 9.7 and 11.2, respectively. However, we could not validate Albany’s design value. The test design value was 12.6. There was just too much missing data – three quarters in 2012 had completeness issues.

We have looked at the data and have determined that if we can consider “force majeure” for the 1<sup>st</sup> quarter 2011 and subsequently apply normal data substitution methods prescribed in 40 CFR Part 50 Appendix N, these areas (except for Columbus where we have demonstrated attainment via bootstrapping and Albany where we would still have incomplete data) would also be in attainment of the PM<sub>2.5</sub> annual NAAQS of 12.0 ug/m<sup>3</sup>.

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Here is a picture showing the snow and sleet accumulation during the storm. The GA lab is located in the blue area which received 4-6 inches of snow/ice.

# Snow and Sleet Accumulation 1/9-10/



<b>AREA</b>	<b>STATUS W/O FORCE MAJEURE APPLIED</b>	<b>STATUS W FORCE MAJEURE APPLIED</b>
Albany	Incomplete Data	Incomplete Data
Athens	Attaining Design Value	Attaining Design Value
Atlanta	Incomplete Data	Attaining; Bootstrapping Needed for One Monitor
Augusta	Incomplete Data	Attaining Design Value
Brunswick	Incomplete Data	Incomplete Data
Chattanooga (Ga. Portion)	Attaining Design Value	Attaining Design Value
Columbus	Bootstrapping Conducted	Attaining Design Value w/ Data Sub
Gainesville	Attaining Design Value	Attaining Design Value
Macon	Attaining Design Value	Attaining Design Value
Rome	Attaining Design Value	Attaining Design Value
Savannah	Incomplete Data	Attaining Design Value w/ Data Sub
Valdosta	Incomplete Data	Attaining Design Value w/ Data Sub
Warner Robins	Attaining Design Value	Attaining Design Value
Washington County	Incomplete Data	Attaining Design Value
Wilkinson County	Attaining Design Value	Attaining Design Value

## Snow and Sleet Accumulation 1/9-10/2011

